

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1-32. (Canceled)

33. (New) A cleaning method for cleaning an object having a patterned structure on a surface, comprising:

making a cleaning agent contact a surface of the object,

wherein said cleaning agent is in a liquid state and consists essentially of a liquid having a viscosity of at least 50mPa•s, and

applying a force to the surface.

34. (New) The cleaning method according to claim 33, wherein the force is generated by the movement of the liquid on the surface.

35. (New) The cleaning method according to claim 33, wherein the force is generated by the movement of the liquid caused by the relative motion of a member in contact with the liquid, but not in contact with the object, and the object.

36. (New) The cleaning method according to claim 35 wherein the member has an odd shaped surface.

37. (New) The cleaning method according to claim 33, wherein the force is an externally applied force.

38. (New) The cleaning method according to claim 33, wherein the liquid has a viscosity of not greater than 700mPa•s.

39. (New) The cleaning method according to claim 33, wherein the liquid has a viscosity of 100 to 400mPa•s.

40. (New) The cleaning method according to claim 33, wherein the liquid has a viscosity of 200 to 300mPa•s.

41. (New) The cleaning method according to claim 33, wherein the liquid has a pH value which makes the zeta potential of both of the surface of the object and that of a particle to be removed from the surface of homopolar.

42. (New) The cleaning method according to claim 33, wherein the liquid has a pH value of at least 6.

43. (New) The cleaning method according to claim 33, wherein the liquid has a pH value of at least 9.

44. (New) The cleaning method according to claim 33, wherein the object is a photo-mask which has a pattern on the surface.

45. (New) The cleaning method according to claim 44, wherein the photo-mask has a pattern having an undercut shape on the surface thereof.

46. (New) The cleaning method according to claim 34, wherein the liquid is moved on the surface by rotation of the object, declination of the object, continuous supply of the liquid on the object, swinging of the object or blowing of the liquid on the object.

47. (New) The cleaning method according to claim 34, wherein the liquid is moved on the surface by supplying another liquid having lower viscosity than the liquid.

48. (New) The cleaning method according to claim 33, wherein the liquid comprises a water soluble compound selected from the group consisting of polymeric glycol, ethylene oxide additives and propylene additives of polyatomic alcohol and nonionic surfactant.

49. (New) A particle removing method for removing a particle which is adhered on the surface of an object, comprising

making a cleaning agent contact a surface of an object, said cleaning agent being in a liquid state and comprising a liquid having a viscosity of at least 50mPa•s, and applying a force on the surface.

50. (New) The particle removing method according to claim 49, wherein the force is generated by the movement of the liquid on the surface.

51. (New) The particle removing method according to claim 49, wherein the force is generated by the movement of the liquid caused by the relative motion of a member in contact with the liquid, but not in contact with the object, and the object.

52. (New) The particle removing method according to claim 49, wherein the force is an externally applied force.

53. (New) The particle removing method for removing a particle which is adhered on the surface of an object, comprising:

making a liquid contact the surface to which the particle is adhered;

moving the liquid while maintaining the contact;

generating a force by the movement of the liquid; and

removing a particle by the force,

wherein said liquid has a viscosity such that the force generated by the movement of the liquid is larger than the adhesion force between the particle and the substrate.

54. (New) A particle removing method for removing a particle which is adhered on the surface of an object, comprising:

interposing a liquid between a surface of the object to which the particle is adhered and a member different from the object;

moving the object and the member relatively in a non-contact state, generating a force by the movement of the liquid; and

removing a particle by the force,

wherein said liquid has a viscosity such that the force generated by the relative movement is larger than the adhesion force between the particle and the substrate.

55. (New) The particle removing method according to claim 53, wherein the viscosity of the liquid is 50 mPa•s or higher.

56. (New) The particle removing method according to claim 54, wherein the viscosity of the liquid is 50 mPa•s or higher.

57. (New) The particle removing method according to claim 53, wherein the object has a patterned structure on the surface.

58. (New) The particle removing method according to claim 56, wherein the object is a photo-mask.

59. (New) The particle removing method according to claim 57, wherein the object has a pattern having an undercut shape on the surface thereof.

60. (New) A cleaning apparatus for cleaning an object, comprising:
a liquid supplier for supplying a liquid by making the liquid contact a surface of the object, wherein the liquid has a viscosity of at least 50mPa•s, and
means for applying a force on the surface in maintaining the contact.

61. (New) The cleaning apparatus according to claim 60, wherein the means for applying the force is capable of making the liquid move on the surface.

62. (New) The cleaning apparatus according to claim 60, wherein the means for applying the force is capable of moving the object relative to a member different from the object in a non-contact state.

63. (New) The cleaning apparatus according to claim 62, wherein the member different from the object has a planar area facing the object.

64. (New) The cleaning apparatus according to claim 62, wherein the planar area of the member different from the object has a concavo-convex surface.

65. (New) The cleaning apparatus according to claim 60, wherein the device applying the force is capable of applying a force externally.

66. (New) The cleaning apparatus according to claim 60, further comprising a means for changing the viscosity of the liquid.

67. (New) The cleaning apparatus, according to claim 60, wherein the cleaning apparatus removes the particle adhered to the object.

68. (New) A cleaning agent in a liquid state for cleaning a surface of an object, having a viscosity of at least 50 mPa•s.

69. (New) The cleaning agent according to claim 68, wherein the pH value of the agent is 6 or higher.

70. (New) A cleaning agent in a liquid state, for cleaning a patterned photo-mask, having a viscosity of at least 50 mPa•s and a pH value of at least 9, wherein the cleaning agent contains substantially no solid substance.

71. (New) The cleaning method according to claim 70, wherein the liquid comprises at least one water soluble compound selected from the group consisting of polymeric glycol, ethylene oxide additives and propylene additives of polyatomic alcohol and nonionic surfactant.